

Amendment to the Specification:

Please replace the Abstract with the following:

ABSTRACT

Disclosed is a matched filter for implementing the correlation of an input signal and a reference signal. The matched filter comprises N parallel M-sample long shift registers for receiving an equal number of input signals at the sampling frequency of the input signal, wherein $N \geq 2$. The matched filter also stores K reference signals, wherein $K \geq 2$, and then multiplexes one of the input signals and one of the reference signals at a time to calculation logic by applying alternately at least one combination of the input signals and the reference signals to the calculation logic. The calculation logic may then calculate the correlation time-dividedly for each combination of an input signal and a reference signal so that correlation results calculated from different signals appear at the output of the calculation means as a sequence.

Please replace the paragraph beginning on page 13, line 28 with the following amended paragraph:

Finally, the sums are compared in a comparator 6-46 with a threshold value stored in a register 6-47, and the comparison result is applied via the register ~~6-47~~ 6-48 to the state machine 4-3 in Figure 4. To increase the

probability of the right decision and to decrease the probability of wrong decisions, any exceeding of the threshold value levels must be secured by waiting for several comparison results corresponding to the same phase difference and reference signal. If sufficiently many comparisons exceed the threshold value level, the signal can be declared found at good certainty. The state machine 4-3 implements a verification algorithm by means of which the threshold value level can be lowered so low that even weak signals are found without wrong decisions being made on the finding of a signal. The obtained phase difference of the signal is used in the receiver to initialize a local reference code generator to the right phase.

Ad
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